SMART ONE

Internal PCI V.92 Modem

Model: 56FW92

BEST DATA

Table of Contents

Warranty Statement **4**
FCC Statement **6**
About This User's Guide **7**
Safety Notices **8**
Chapter 1 Before you Begin **9**
Chapter 2 Installing the Modem **10**
Chapter 3 Modem Driver Installation **12**
Windows 95 13
Windows 98 15
Windows ME 18
Windows 2000 20
Windows XP 23
Chapter 4 Testing the Modem **27**
Chapter 5 Installing Communications Software **28**
Chapter 6 NetWaiting **29**
Chapter 7 General Troubleshooting **30**
Appendix A How to Get Technical Assistance **33**

Five-Year Limited Warranty

The warranty described below is extended only to the original buyer and is not transferable.

1. **Customer Obligations**
   - A. CUSTOMER assumes full responsibility that the product purchased and any copies of software included with it or licensed separately; meet the specifications, capacity, versatilities and other requirements of the customer.
   - B. CUSTOMER assumes full responsibility for the installation and effectiveness of the operating environment in which the product and software are to function.

2. **Limited Warranty and Conditions of Sale**
   - A. Best Data warrants that this product is free from all defects in materials and workmanship for five years from the date of purchase from an authorized dealer.
   - B. Except as provided herein no employee, agent, franchise, dealer or other person is authorized to give any warranties of any nature on behalf of Best Data.

3. **Repairs and Service**
   - A. If the product proves defective during this warranty period, call Best Data Customer Support in order to obtain a return Authorization number (RMA#). Be sure you have your proof of purchase on hand when calling. When returning the product, clearly mark the Return Authorization number on the outside of the package and include a copy of your original proof of purchase.
   - B. Once a product is returned, Best Data will at its option, repair or replace the defective product or components, to whatever extent it deems necessary to restore the product or component to proper operating condition.
   - C. Best Data shall not be liable for any damages caused by delay in delivering the product or its software.
   - D. Customer is responsible for all shipping costs when returning the product to Best Data.
   - E. After 90 days from the date of purchase, customer is required to pay a flat fee of nine dollars ($9.00) for return shipment.

4. **Limits of Liabilities**
   - A. THE CUSTOMER SHALL BE SOLELY RESPONSIBLE FOR THE FAILURE OF THIS PRODUCT OR COMPONENT THEREON, RESULTING FROM ACCIDENT, ABUSE, OR MISAPPLICATION OF THE PRODUCT, AND MANUFACTURER ASSUMES NO LIABILITY AS A CONSEQUENCE OF SUCH EVENTS UNDER THE TERMS OF THIS WARRANTY.
   - B. NO ACTION SHALL BE BROUGHT FOR BREACH OF ANY IMPLIED OR EXPRESSED WARRANTY AFTER 30 DAYS SUBSEQUENT TO THE EXPIRATION OF THE PERIOD OF THE EXPRESSED WRITTEN WARRANTY.
   - C. INCIDENTAL AND CONSEQUENTIAL DAMAGES CAUSED BY MALFUNCTION, DEFECT OR OTHERWISE AND WITH RESPECT TO BREACH OF ANY EXPRESSED OR IMPLIED WARRANTY ARE NOT THE RESPONSIBILITY OF MANUFACTURER, AND TO THE EXTENT PERMITTED BY LAW ARE HEREBY EXCLUDED BOTH FOR PROPERTY AND TO THE EXTENT NOT UNCONSCIONABLE, FOR PERSONAL INJURY DAMAGE.
   - D. IN NO EVENTSHALL BEST DATA LIABILITIES EXCEED THE PRICE PAID FOR THE PRODUCT FROM DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, ITS ACCOMPANIED SOFTWARE, OR ITS DOCUMENTATION.
   - E. SOME STATES DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY MAY LAST, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS, WHICH MAY VARY FROM STATE TO STATE.
   - F THIS WARRANTY APPLIES ONLY TO THIS PRODUCT, AND IS GOVERNED BY THE LAWS OF THE STATE OF CALIFORNIA. LAWSUITS BASED ON ANY CLAIM ARISING FROM USAGE OF THIS PRODUCT MUST BE FILED AND PERSECUTED IN A COURT OF COMPETENT JURISDICTION LOCATED IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA.

Best Data reserve the right to revise or update its products, software, or documentation without obligation to notify any individual or entity. Please direct all Inquiries to:

BEST DATA PRODUCTS, INC.
19748 Dearborn Street
Chatsworth, CA 91311

Trademarks

IBM PC is a trademark for International Business Machines.
Pentium is a trademark for Intel Corporation.
Windows is a trademark of Microsoft Corporation.
All other trademarks are trademarks of their respective companies.

FCC Statement

Note: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CE Marking Warning

This is a Class B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

This manual is written for users who wish to install the Smart One V.92 modem themselves. It contains step by step instructions on how to configure it for different operating systems. We urge you to read the safety page of this manual before you proceed.

To avoid a shock hazard, do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.

To avoid shock hazard:

- **The power cord must be connected to a properly wired and earthed receptacle.**
- **Any equipment to which this product will be attached must also be connected**

To Prevent static discharge:
Discharge static electricity from your body before you touch this product or any part inside your computer and periodically while you work inside your computer. You can do so by touching the unpainted back part of your computer chassis.

You can also take the following steps to prevent static damage:

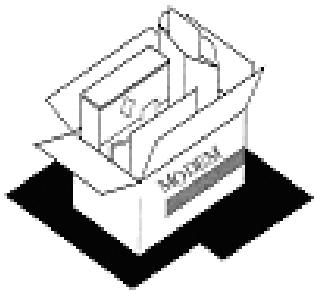
Do not remove items from their antistatic packaging material until you are ready to install them in your computer. Just before unwrapping the antistatic packaging, be sure to discharge static electricity from your body.

Chapter 1

Before You Begin

Make sure you have the following items available before you start your modem installation:

Package Contents:

1. 56FW 92 Internal PCI Modem	
2. Quick Start Guide	
3. Warranty Card	
4. RJ-11 Telephone Cable	
5. Modem Installation CD	
6. AOL Installation CD	

Recommended PC Configuration

1. Pentium class 266mhz MMX or equivalent PC
2. Windows 95, 98, ME, NT 4.0, 2000, XP
3. 30 MB Hard Disk space
4. CD ROM Drive

Chapter 2

Installing the Modem

Before inserting the modem into the computer there are a few things to examine on your system. The following is a list of items that you may want to check prior to installing the card into the computer.

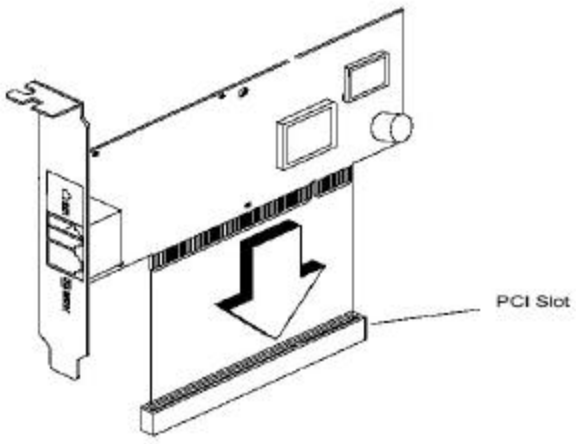
1. Remove any existing modem drivers from your computer.

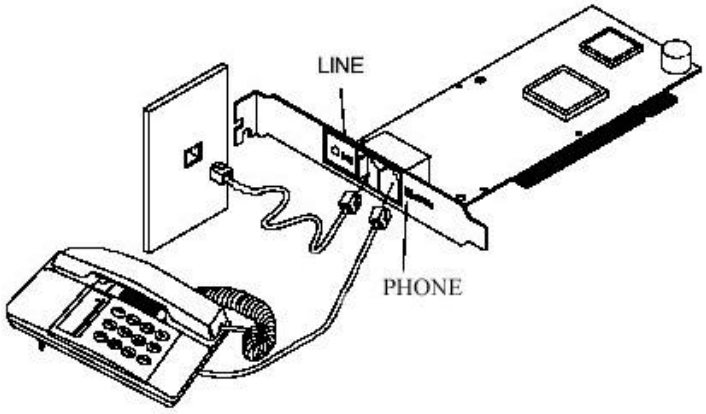
2. Turn off your computer.

3. Take off the cover to the computer. If you are not familiar with this procedure, please consult your computer's instruction manual.

4. Locate an available PCI slot. If there is a slot cover blocking the slot please remove it and save the screw for later.

5. Plug the modem firmly into the slot. Be sure that the bracket is lined up properly; then anchor the bracket in place using the screw you removed. Be sure that gold contacts are seated evenly into the connector.





6. **Connect the telephone cable**. Plug one end of the telephone cable into the RJ-11 jack marked LINE and the other end into a phone line outlet. You may now connect your telephone set to the jack marked PHONE (optional)

7. Replace the cover to the computer.

8. Turn on the power to the computer and insert the **Modem Installation CD** as Windows is starting up.

Chapter 3

Modem Driver Installation

Select Your Operating System

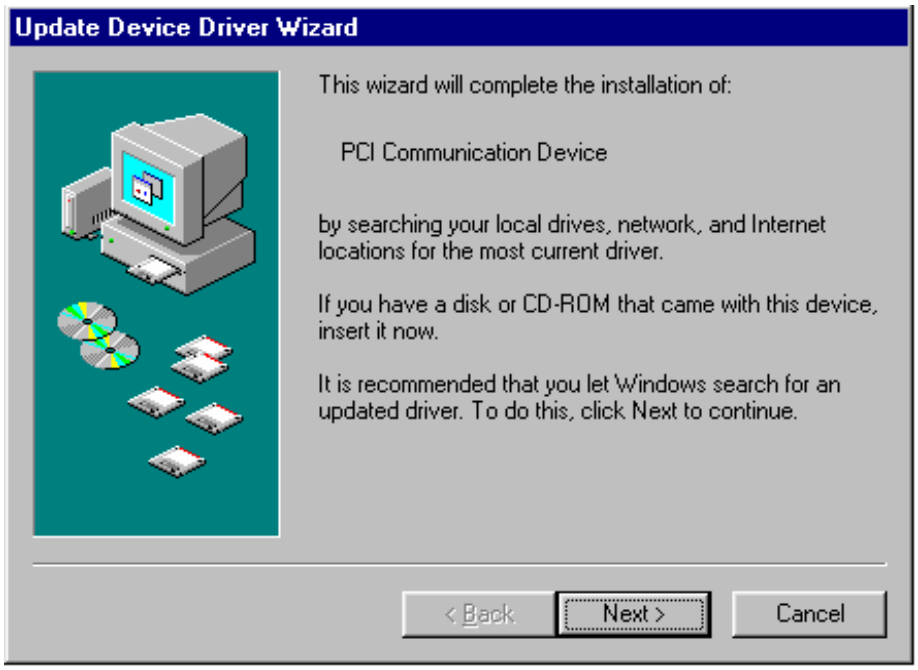
Depending on you computer's Operating System, you need to go to the correct section of this guide and continue with the installation. Step by step assistance is available for you to install your modem under the operating system of your choice.

The Following operating systems are supported:

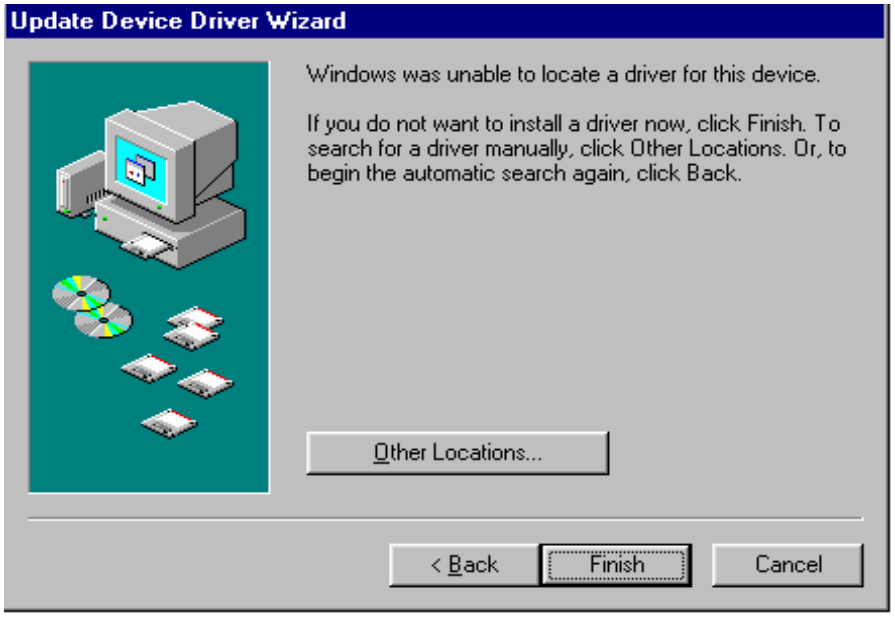
Windows 95	Page 13
Windows 98	Page 15
Windows ME	Page 18
Windows 2000	Page 20
Windows XP	Page 23

Windows 95 Installation

1. Windows will auto detect your modem upon startup.
   The following screen will appear:

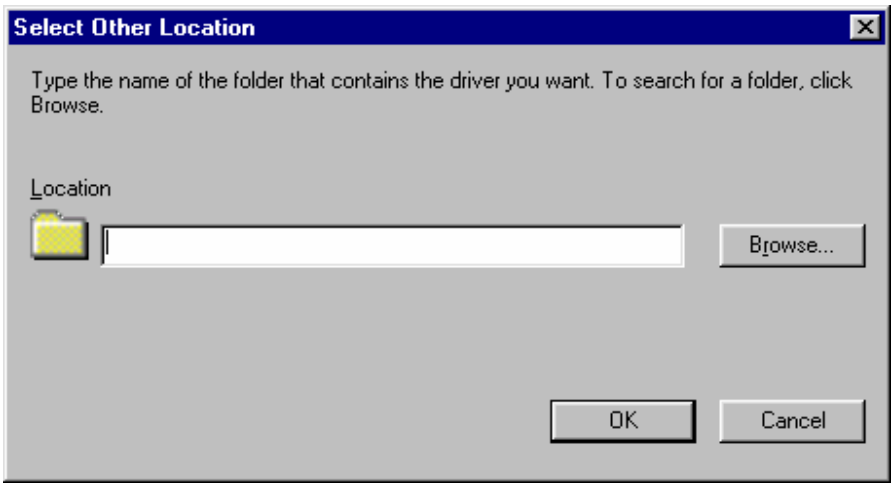

Update Device Driver Wizard
This wizard will complete the installation of:
PCI Communication Device
by searching your local drives, network, and Internet locations for the most current driver.
If you have a disk or CD-ROM that came with this device, insert it now.
It is recommended that you let Windows search for an updated driver. To do this, click Next to continue.
< Back
Next >
Cancel

2. Click **Next** to start the installation.
   The following screen will appear:


Update Device Driver Wizard
Windows was unable to locate a driver for this device.
If you do not want to install a driver now, click Finish. To search for a driver manually, click Other Locations. Or, to begin the automatic search again, click Back.
Other Locations...
< Back
Finish
Cancel

3. Click **Other Locations**.

The following screen will appear:


Select Other Location
Type the name of the folder that contains the driver you want. To search for a folder, click Browse.
Location
Browse...
OK
Cancel

4. Type in the following path: **X:\WIN95** (Where X = CD-ROM drive letter) and click **OK**.

5. Click the **Finish** button to complete the installation.
(*Note: You may be warned that a file could not be located. If this happens click **OK** and type:* **X:\WIN95** *(Where X=CD-ROM drive letter) and click **OK**.*)

Windows 98 Installation

1. Windows will auto detect your modem upon startup.
   The following screen will appear:

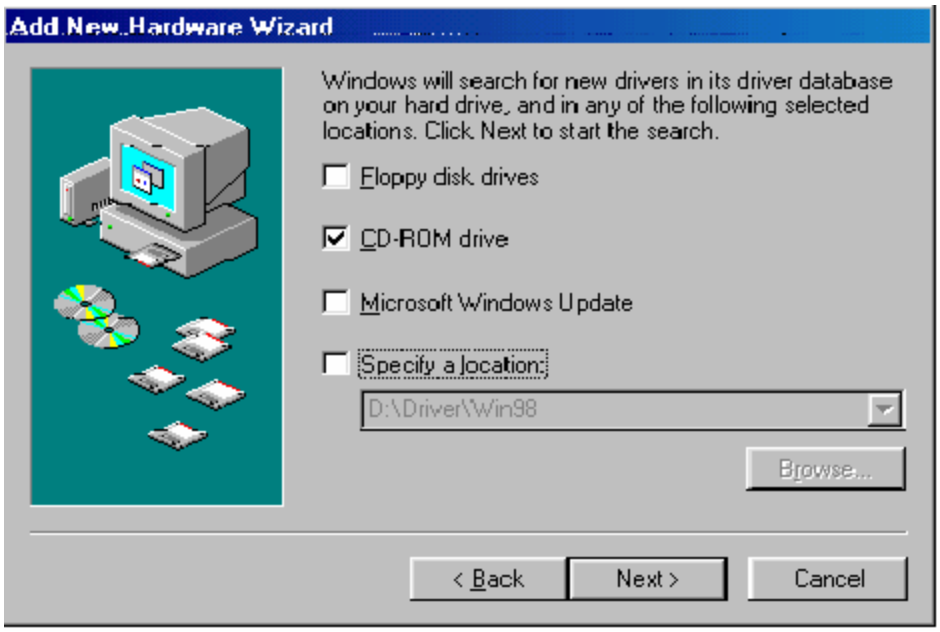
Add New Hardware Wizard
This wizard searches for new drivers for:
PCI Communication Device
A device driver is a software program that makes a hardware device work.
< Back
Next >
Cancel

2. Click **Next**.
   The following screen will appear:

Add New Hardware Wizard
What do you want Windows to do?
Search for the best driver for your device. (Recommended).
Display a list of all the drivers in a specific location, so you can select the driver you want.
< Back
Next >
Cancel

3. Select **Search for the best driver for your device (Recommended)** and click the **Next** button.

The following screen will appear:


Add New Hardware Wizard
Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search.
Floppy disk drives
CD-ROM drive
Microsoft Windows Update
Specify a location:
D:\Driver\Win98
Browse...
< Back
Next >
Cancel

4. Uncheck the box **CD-ROM drive** and check **Specify a location** and type: **X:\Win98** (Where X=the CD-ROM drive letter) and then click **Next**.

   The following screen will appear:

Add New Hardware Wizard
Windows driver file search for the device:
56FW-92 PCI Modem Enumerator
Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue.
Location of driver:
D:\WIN98\BIN\P573\CXT1059M.INF
< Back
Next >
Cancel

5. Click **Next**.

The following screen will appear:

Add New Hardware Wizard
56FW-92 PCI Modem Enumerator
Windows has finished installing the software that your new hardware device requires.
< Back
Finish
Cancel

6. Click **Finish** to complete the installation.

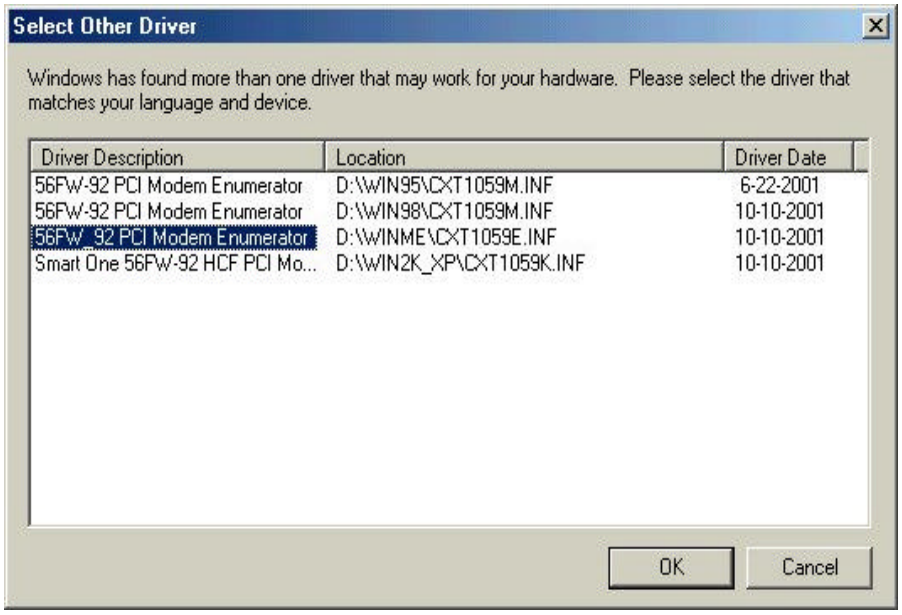
Windows ME Installation

1. Windows will auto detect your modem upon startup.

   The following screen will appear:

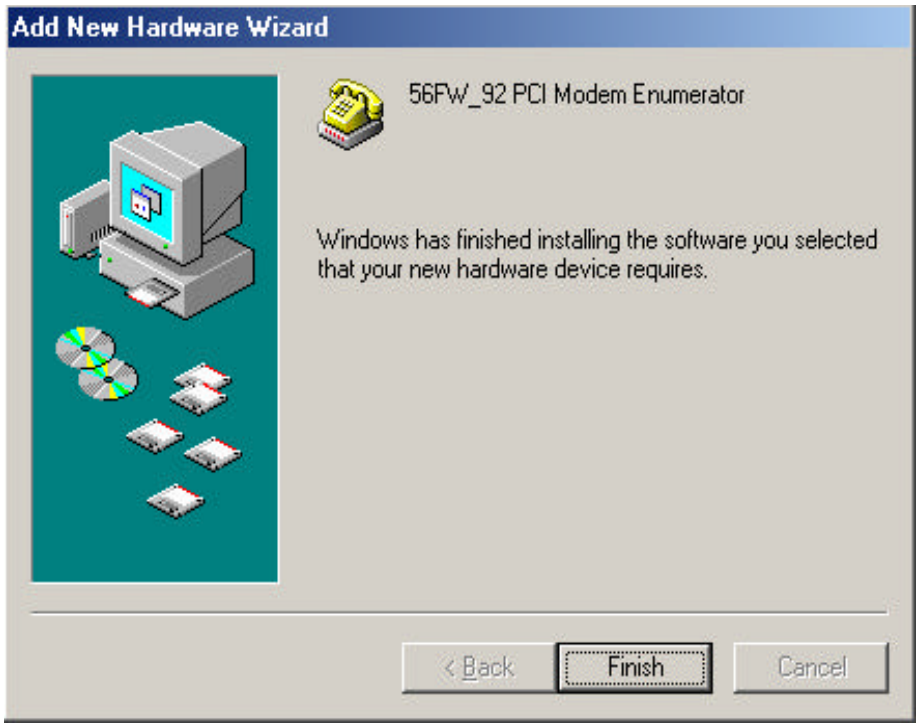
Add New Hardware Wizard
Windows has found the following new hardware:
PCI Communication Device
Windows can automatically search for and install software that supports your hardware. If your hardware came with installation media, insert it now and click Next.
What would you like to do?
Automatic search for a better driver (Recommended)
Specify the location of the driver (Advanced)
< Back
Next >
Cancel

2. Select **Automatic search for a better driver (Recommended)** and click **Next**.



3. Windows will display multiple listings of the driver location. Choose the driver that shows the location of: **X:\WINME\CXT1059E.INF** and click **OK**.

The following screen will appear:


Add New Hardware Wizard
56FW_92 PCI Modem Enumerator
Windows has finished installing the software you selected that your new hardware device requires.
< Back
Finish
Cancel

4. Click **Finish** to complete the installation.

Windows 2000 Installation
(You must login with administrative rights)

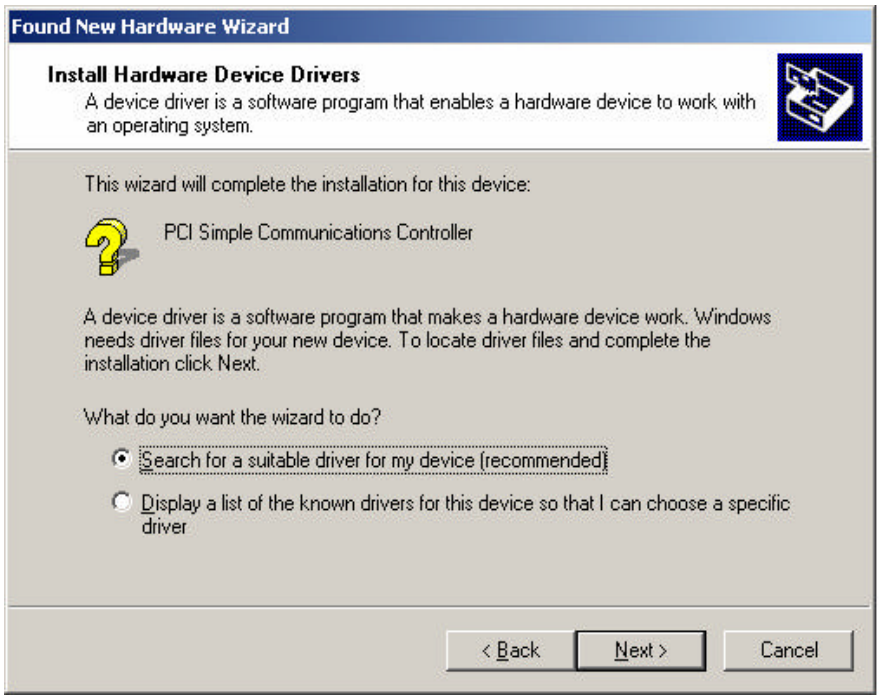
1. Windows will auto detect your modem.

   The following screen will appear:

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install a device driver for a hardware device.
To continue, click Next.
< Back
Next >
Cancel

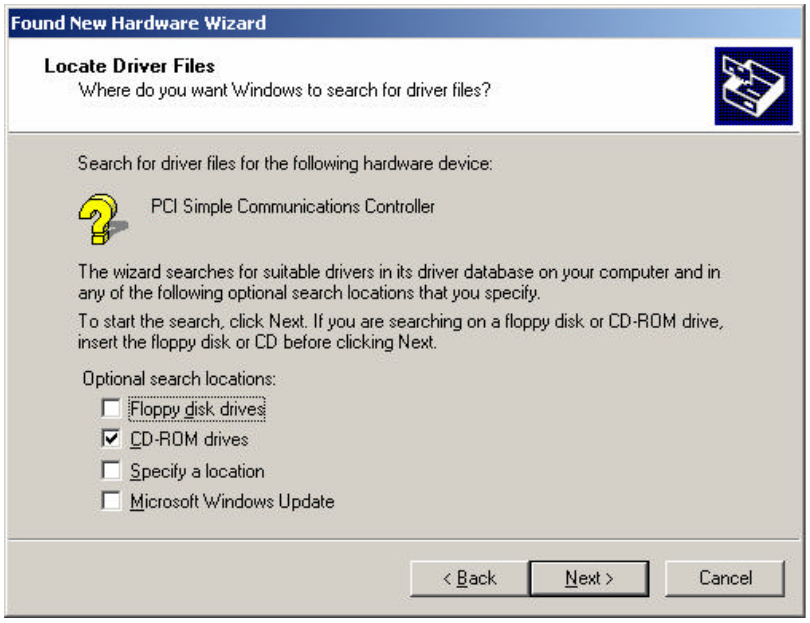
2. Click **Next** to start the installation.

The following screen will appear:


Found New Hardware Wizard
Install Hardware Device Drivers
A device driver is a software program that enables a hardware device to work with an operating system.
This wizard will complete the installation for this device:
PCI Simple Communications Controller
A device driver is a software program that makes a hardware device work. Windows needs driver files for your new device. To locate driver files and complete the installation click Next.
What do you want the wizard to do?
Search for a suitable driver for my device (recommended)
Display a list of the known drivers for this device so that I can choose a specific driver
< Back
Next >
Cancel

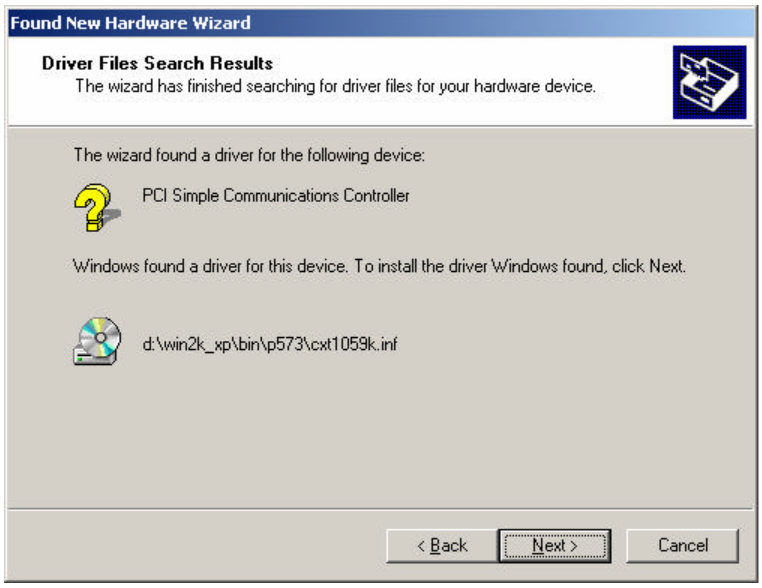
3. Select **Search for a suitable driver for my device (Recommended)** and click **Next**.

   The following screen will appear:


Found New Hardware Wizard
Locate Driver Files
Where do you want Windows to search for driver files?
Search for driver files for the following hardware device:
PCI Simple Communications Controller
The wizard searches for suitable drivers in its driver database on your computer and in any of the following optional search locations that you specify.
To start the search, click Next. If you are searching on a floppy disk or CD-ROM drive, insert the floppy disk or CD before clicking Next.
Optional search locations:
Floppy disk drives
CD-ROM drives
Specify a location
Microsoft Windows Update
< Back
Next >
Cancel

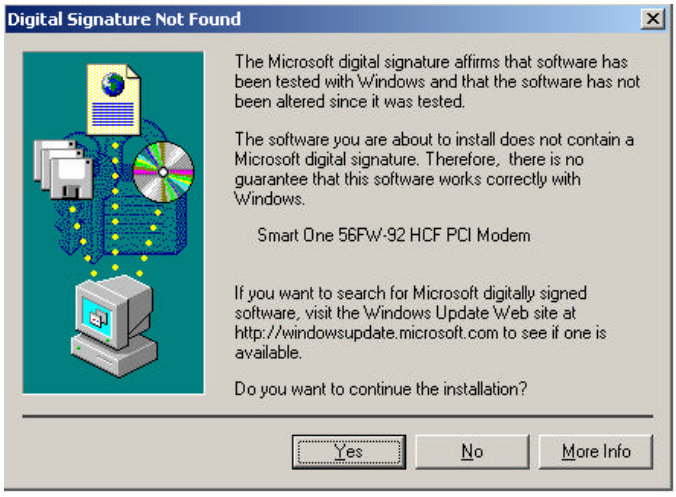
4. Check the box CD-ROM drive and click **Next**.

The following screen will appear:


Found New Hardware Wizard
Driver Files Search Results
The wizard has finished searching for driver files for your hardware device.
The wizard found a driver for the following device:
PCI Simple Communications Controller
Windows found a driver for this device. To install the driver Windows found, click Next.
d:\win2k_xp\bin\p573\cxt1059k.inf
< Back
Next >
Cancel

5. Click **Next**.

   The following screen will appear:


Digital Signature Not Found
The Microsoft digital signature affirms that software has been tested with Windows and that the software has not been altered since it was tested.
The software you are about to install does not contain a Microsoft digital signature. Therefore, there is no guarantee that this software works correctly with Windows.
Smart One 56FW-92 HCF PCI Modem
If you want to search for Microsoft digitally signed software, visit the Windows Update Web site at http://windowsupdate.microsoft.com to see if one is available.
Do you want to continue the installation?
Yes
No
More Info

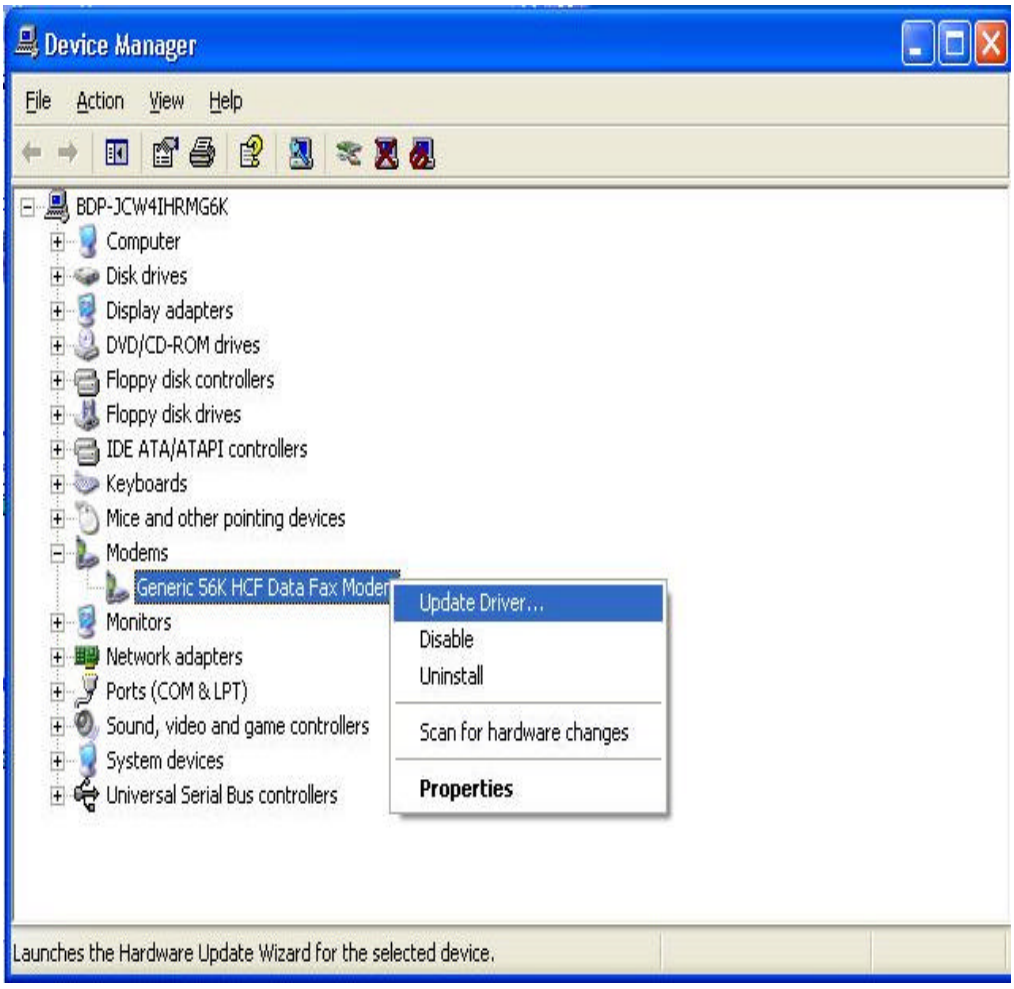
6. Click **Yes** and then click **Finish** when prompted to complete the installation.

Windows XP Installation

(You must login with administrative rights)

1. Windows will auto detect and install your modem with a built in HCF driver.

2. From your Windows desktop click **Start**, right click **My Computer**, left click Properties. Click the **Hardware** tab and the **Device Manager** button.



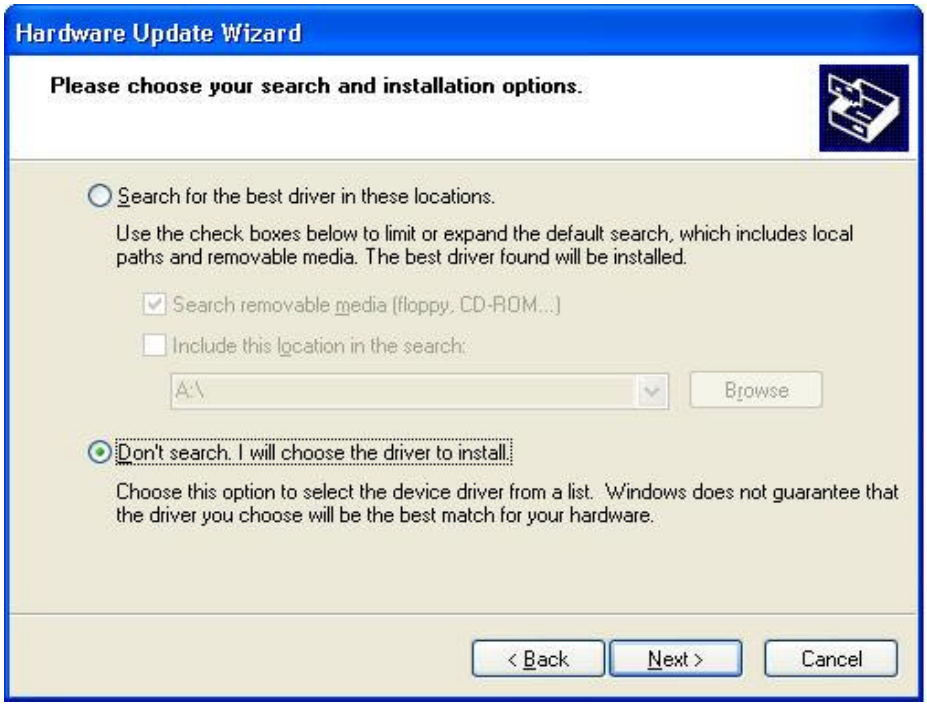
3. Click the + symbol next to **Modems.** Right click **Generic 56K HCF Data Fax Modem** and left click **Update Driver**.

The following screen will appear:

Hardware Update Wizard
Welcome to the Hardware Update Wizard
This wizard helps you install software for:
Generic 56K HCF Data Fax Modem
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

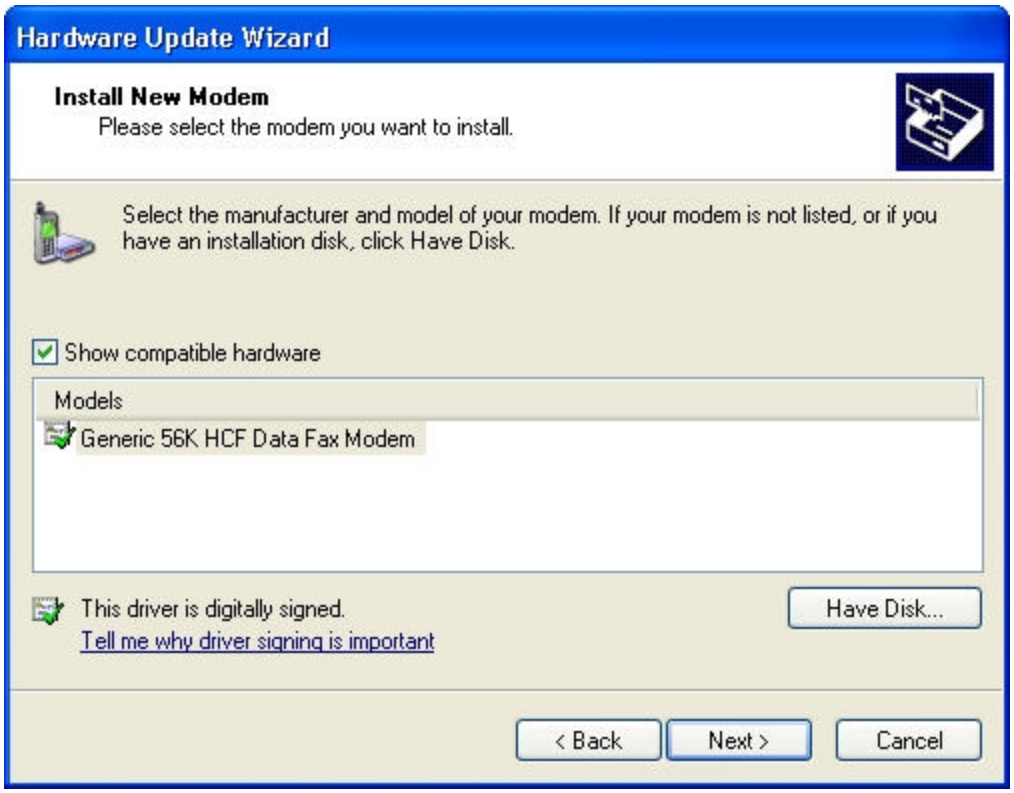
4. Select **Install from a list or specific location (Advanced)** and click **Next**.

   The following screen will appear:

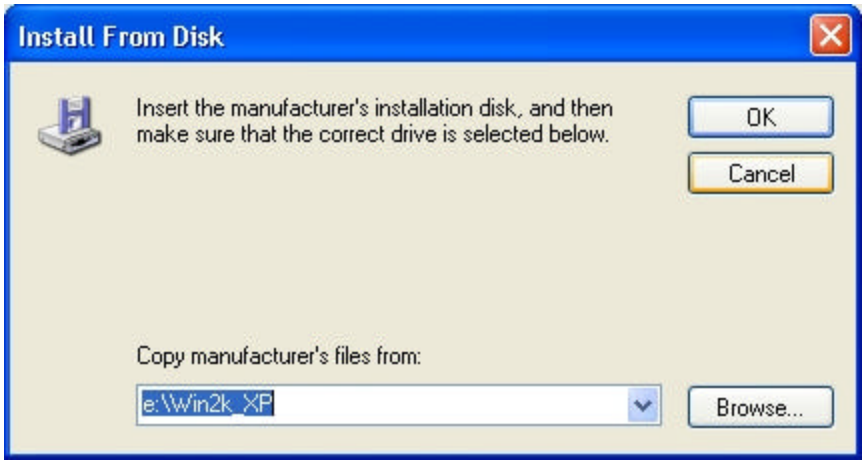

Hardware Update Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
A:\
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel

5. Select **Don't search, I will choose the driver to install** and click **Next**.

The following screen will appear:

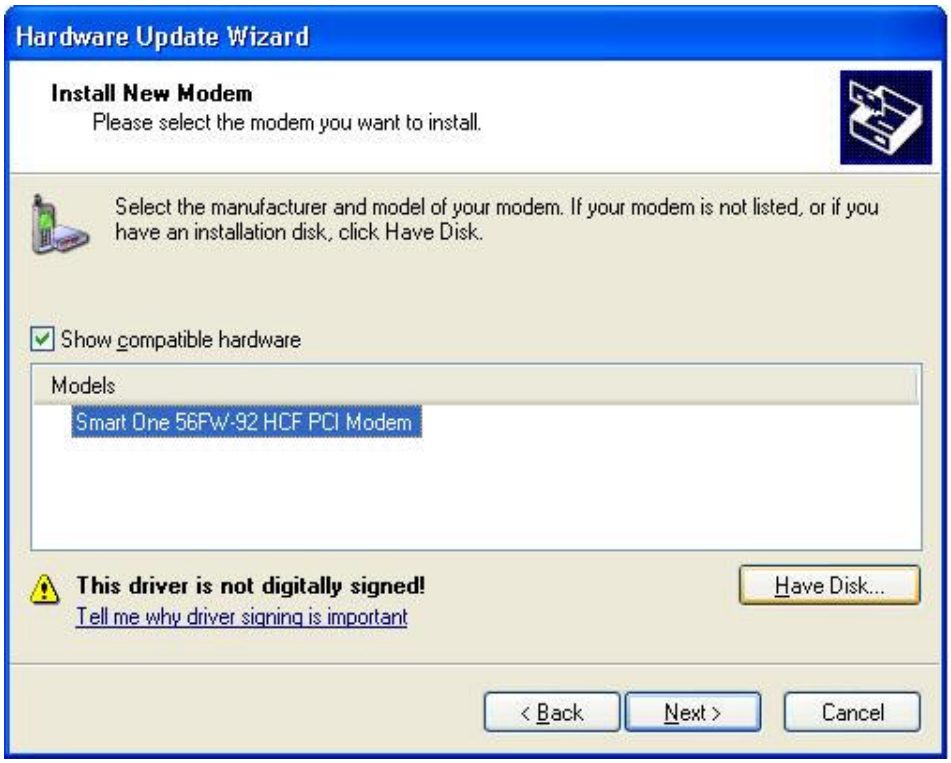

Hardware Update Wizard
Install New Modem
Please select the modem you want to install.
Select the manufacturer and model of your modem. If your modem is not listed, or if you have an installation disk, click Have Disk.
Show compatible hardware
Models
Generic 56K HCF Data Fax Modem
This driver is digitally signed.
Tell me why driver signing is important
Have Disk...
< Back
Next >
Cancel

6. Select **Have Disk**.



7. Type the path to the driver on the Modem Installation CD click **OK**.
   Example **X:\WIN2K_XP** (Where **X** = the driver letter of your CD-ROM)

The following screen will appear:


Hardware Update Wizard
Install New Modem
Please select the modem you want to install.
Select the manufacturer and model of your modem. If your modem is not listed, or if you have an installation disk, click Have Disk.
Show compatible hardware
Models
Smart One 56FW-92 HCF PCI Modem
This driver is not digitally signed!
Tell me why driver signing is important
Have Disk...
< Back
Next >
Cancel

8. Select **Smart One 56FW-92 HCF PCI Modem** and click **Next**.

   The following screen will appear:

Hardware Installation
The software you are installing for this hardware:
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

9. Click **Continue Anyway**.

10. Click **Finish** when prompted to complete the installation.

Chapter 4

Testing the Modem

This chapter helps you verify whether the modem actually communicates with Windows or not. Here, you will find detailed test procedures for most versions of Windows.

Before you use the modem, go through the following check list:

1. Check for the presence of dial tone. Use a telephone and listen for the dial tone.
2. Check if the line cord is locked into the jack marked **LINE**. Use the cord that came with your package.
3. For now, remove other devices sharing this line; such as Fax machine, other telephones, surge protector, or line splitters.

Does your modem communicate with Windows?

1. From your desktop, click the **Start** button, point to **Setting** and click **Control Panel**.
2. In the **Control Panel**, double click **Modems**.
   If there are multiple entries for the same modem or modems listed that are not installed, delete the entries and all extras.
3. Restart your computer now.

Notice: The above steps may in fact be slightly different for different version of Windows. The followings are more specific procedures for a given Operating System.

Dialing Test

From the Hyper Terminal screen, you may dial a number.

ATDT xxx-xxxx, then **Enter**

By doing so, you should first hear the dialing tones and then the dialing numbers. Any response from the receiver confirms your modem connectivity.

Testing for Windows 95/98/ME

Click on **Start, Settings, Control Panel,** and double click **Modems**. Click the **Diagnostics** tab, highlight the COM port for your modem, and click **More Info**. If you see a list of responses then the modem is functioning.

Testing for Windows XP/2000:

Click on **Start,** *right click* **My Computer,** *left click* **Properties.** Click the **Hardware** tab and click the Device Manager button. Open the modem section and double click the **56FW-92 modem.** Click the **Diagnostics** tab and click the **Query Modem** button. If you see a list of responses then the modem is functioning.

Once you have determined that your modem is working properly, proceed with the installation of your communication software.

Chapter 5

Communications Software Installation

This chapter assists you with the installation of the data/fax software. The software has excellent embedded help in which you will be able to find detailed descriptions of the software functions.

You can install the Super Voice communications software from the CD-ROM included in your package, which uses an easy point-and-click interface.

> **Note:** The software Serial Number is located on the Installation CD; make sure to type the serial number into the required field when prompted.

For Windows XP and Windows 2000, insert the disc in your CD-ROM drive (cancel or exit the Auto-Run if already started). Choose **Run** from the **Start** menu. Click on **Browse**; go to **WIN2K_XP** folder on the CD-ROM drive and Double-click on **Setup**. Click **Proceed** to begin the installation. There are slight differences between Windows 2000 and Windows XP.

For Windows 95/98/ME, From '**My Computer'**, double click on your CD-ROM icon. The CD will Auto-Run to Super Voice Communication software. Follow the screen prompts to complete your software installation. If the CD does not Auto-Run double click on the SV folder and double click the PICSHELL.EXE icon to start the installation.

Chapter 6

NetWaiting

NetWaiting Installation
While Browsing the Modem Installation CD from **My Computer** open the **MOHconfig** folder and double click the **MOHconfig.exe** icon. This will appear to do nothing in some versions of Windows but could take up to 1 minute to complete.

While browsing the Modem Installation CD from **My Computer** open the **NetWaiting** folder and double click the **SETUP.EXE** icon. This will install the NetWaiting application which is responsible for the Internet on Hold feature that this modem is capable of.

NetWaiting Usage
Before you connect to the Internet you need to launch the NetWaiting application. The program will minimize to the system tray and will alert you when an incoming call is detected. You can also use the application to interrupt the internet to make an outgoing call. After you launch the NetWaiting application you can connect to your internet provider.

The time limit for the Internet hold time will be preset by each ISP. A lot of ISP's will be restricting this time limit to 2 minutes. Please check with your V.92 ISP to find out the maximum hold time for placing the internet connection on hold.

To answer an incoming call you need to press the Accept button and then lift your handset to take the incoming call. To return to your internet connection first click on the Reconnect button and then physically hang up the telephone handset.

To make an outgoing call you need to press the Outgoing Call button and then take your handset off hook to make your telephone call. When you are done with the call you need to click the Reconnect button and then place the handset back on hook. In Windows 2000 and XP NetWaiting may not be able to place outgoing calls.

Known Issues
Problem: May not connect after installation.
Solution: Go into the modem section of the control panel and type **'+PIG=1'** into the extra settings of the modem properties for the 56FW-92 modem.

Chapter 7

Troubleshooting

Problem: Your modem does not make a connection.
Solution: If your modem places calls but never makes a connection, make sure you are dialing the right number. The remote modem may be turned off.

Problem: You receive bursts of errors occasionally, but otherwise data quality is good
Solution: The connection may have been established on poor-quality or noisy telephone lines. Hang up and place the call again to try to obtain a better connection.
Someone may be picking up an extension connected to the line that your modem is using. If the modem is sharing a telephone line with other telephones, inform the other users when you will be making a data call.
Your telephone line may have a Call Waiting feature and a call is being received. See Call Waiting discussion above.

Problem: Your computer has a built in modem on its motherboard.
Solution: If your computer has a built-in modem on its motherboard, Windows may reinstall it the next time you start up. If you wish to disable the modem in your PC, consult with your PC User's guide or its manufacture's support group.

Problem: Modem does not respond to AT
Solution:
If the communication software is not configured to the same COM port as the modem, you will be able to send commands to your modem. Make sure that the software's COM port setting matches the modem.
Your computer's COM port resources may be in use by another device. Make sure that the COM port resources used by the modem are not being used by any other device. Verify this by going to Device Manager under Windows Control Panel

Problem: Modem fails to execute an AT command. Or there was no response after executing it.
Solution: Be sure you type **AT** at the beginning of the command line. Make sure the communications software is configured for the same COM port as your modem. Be sure your modem is not in data mode when you type the command. Use the escape character sequence to switch t terminal mode. (The default escape sequence is to wait at least one second, type **+++**, and wait another second or more). If you typed a command but did not receive an **OK** response from your modem: The **E0** and **Q1** commands may be in effect, disabling echo and responses. Verify this with the **&V** command. To enable echo and responses type **AT E1 Q0** and press Enter.

Problem: The modem speaker volume is too low or too high.
Solution: If the software allows you to control the volume, make sure the speaker is enabled and set to a comfortable volume. If the software does not have speaker settings, add one of the **AT** commands listed below to the initialization string:

L1 for low volume
L2 for medium volume
L3 for highest volume

For example, if you want the volume low and the software uses the initialization string **AT &F**, change it to **AT &F L1**.Dial Troubleshooting

Problem: The modem does not automatically dial a call when you send a Dial command.
Solution: Make sure the modem speaker is turned on in your software so that you can hear dialing sounds. Also make sure that the phone line is plugged in. Make sure that you are dialing a valid phone number, including any required dial prefixes. If you are using tone dialing on a line that requires pulse dialing, the line may not be able to accept tone-dialed calls. Select Pulse dialing in your software or make sure software dialing prefix is **ATDP** (for pulse dialing). Make sure your communications software and modem are configured for the same COM port. Make sure your modem has hung up from the previous call. Select **Hang Up** in your software; or type **ATH** in terminal mode.

Problem: The modem can connect to some modems, but not to others.
Solution: If a remote modem does not respond because of the extended negotiation process, you may have to disable part or all of the negotiation process. In the following table, "protocol" means error correction and data compression. Note that the first two lines in the table are likely to be the most valuable.
Note 1: In the command strings shown in the table that follows, the character after **N** is zero, not the letter "O."

To force a different communication speeds…	**Use these commands**
Set to factory default setting	**AT &F**
Connect at 56000 bps (V.90)	**AT +MS=V90**
Connect at 33600 bps (V.34)	**AT +MS=V34**
Connect at 14400 bps (V.32bis)	**AT +MS=V32B**
Connect at 9600 bps (V.32)	**AT +MS=V32**

Note 2: You may find it helpful to include **+MR=2** in your initialization string. This enables the responses of **CARRIER** (telephone line speed) and **PROTOCOL**, as well as the **CONNECT** messages.
Note 3: Some software allows these commands to be added to the list of dial prefixes. There are other configurations that can be forced as well. If you need to select a particular configuration, use the AT command strings shown below. You can always return to the modem's default configuration by typing **AT &F** and pressing the **Enter** key. Remember that if you do this, the modem will not have received the command in your software's initialization string.

Using the **ATZ** command overcomes this problem if you have saved all of your setup parameters in nonvolatile memory. (To save setup parameters in nonvolatile memory in **AT** terminal mode: Type **AT**, followed by the parameter settings you choose, followed by **&W0** or **&W1**, and press **Enter**. For example, if you type **AT &C1 &D2 &W0** and press **Enter**, the **&C1** and **&D2** parameter settings are stored in profile 0. Refer to the Best Data Web Page at **www.bestdata.com/tech/56fw92win9x.htm** for the complete set of **AT** commands.)

To enforce...	**Type these commands and press Enter**
"Normal" operation	**AT \N0**
Auto-answer	**AT S0=1**

Problem: Your modem disconnects while communicating with a remote system.
Solution: The remote system has hung up.
The telephone line disrupted your call. If your telephone service includes Call Waiting, turn it off if possible before making modem calls. You can usually temporarily disable Call Waiting by including ***70,** (the comma is part of the command) or selecting it as a prefix with the telephone numbers in the software's dialing directory.

Problem: Random errors occur or data is missing
Solution: Use the MNP or V.42 protocol if the remote modem supports one of these protocols. See the table on page 32 for more information. Select a lower baud rate in your communications software and place the call again. If both modems are using the MNP or V.42 protocol, the only way this can occur is if your modem and communications software are not using the appropriate flow control. Configure your communications software for **RTS/CTS** (hardware) flow control. Your computer will now pause for the transmission to be stored.

Problem: Data appears garbled on the screen.
Solution: Your communications software character set-up (start bit, data bits, stop bits, and parity bit) may not match that of the remote system. Check your settings against those used by the remote system and make sure they match. Pay particular attention to the parity setting, as this is the most common difference among systems. You should normally use 8 data bits, NO parity, and 1 stop bit (**8, NONE, 1** or **8N1**). The second most common setting is 7 data bits, EVEN parity, and 1 stop bit (**7, EVEN, 1** or **7E1**).

Appendix A

How to Get Technical Assistance?

From time to time, you may run into a situation where you cannot find an answer to one of your questions in the User's Guide. In that case, you should consult with Best Data's Internet web site for more updated information.

No matter how seemingly unimportant or complex, our trained Technicians will be more than happy to help you with any problem related to your Best Data modem.

When phoning Technical Support:

1. If possible, be at the computer in which you have the modem installed.
2. Be prepared to describe in details, the problem or question you have. This includes the exact text of any error message you may be getting in addition to knowing the model number of your Best Data product (56FW-92).
3. If you have made attempts to correct the problem, be prepared to describe the actions you have taken.
4. Technicians are available 8:00 A.M. - 4:30 P.M. PST, Monday - Friday.

Best Data Technical Support can be contacted at:

Option 1: TechExpress	Telephone: **800-587-8167** Support 24hrs/7days a week $7.00 flat fee per incident
Option 2: Free support	Telephone: **818-773-9600** Mon. – Fri. 8:00am – 4:30pm PST

Technical Support via the Internet

The fastest way to get help is to reach the Best Data support site located at: www.bestdata.com/tech/tech.htm .You can find plenty of help that may eventually solve your problem or answer your question. The support page for the 56FW-92 modem is located at: www.bestdata.com/tech/56fw92win9x.htm

If you cannot resolve an issue with the product you can send an email directly to: tech@bestdata.com .